

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/080020 A1

(51) International Patent Classification⁷: B21D 28/28, B23K 26/00, B26F 1/31, E21B 43/08

(21) International Application Number: PCT/BR2005/000005

(22) International Filing Date: 18 January 2005 (18.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: PI 0400812-0 20 February 2004 (20.02.2004) BR

(71) Applicant and
(72) Inventor: PEGORETTI, Marcos Rogério [BR/BR]; Rua Valdomiro Antônio Pereira, 55 Edifício Rio São Francisco, apto. 803, Mata da Praia, 29066-290 Vitória - ES (BR).

(74) Agent: ADVOCACIA PIETRO Ariboni S/C; Rua Guararapes, 1909 - 7o andar, Brooklin Novo, 04561-004 São Paulo - SP (BR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

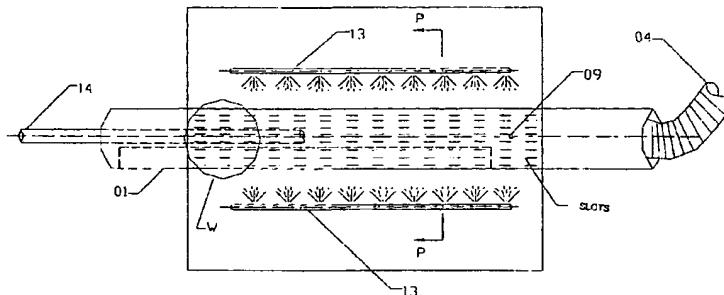
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

Published:

- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD TO PROVIDE SLOTS IN PIPES



(57) Abstract: The present invention refers to a method to provide slots in pipes and, more specifically, to a method to provide slots in metal pipes used to extract oil or to form slotted lines, wherein said slots are specially designed to avoid the intake of impurities while pumping oil. More specifically, the method consists of the following steps: a) external cleaning of the pipe (1) with slag jetting to remove the protecting layer that comes from its manufacture or to remove the impurities due to its oxidation; b) placing the pipe (1) on the receiving table by the set of motors (2) to be subsequently transferred to the cutting table (3), by means of motors (4); c) positioning and fixation of the pipe in the cutting cabin (5) by screwing the pneumatic rotating plate (6); d) execution of the first sequence of slots in the pipe by means of laser or plasma, in a refrigerated environment, by making a first slot with pre-defined power and subsequently the opening of the slot with determined length and thickness, according to the characteristics of the pipe, with said slot having an initial section with parallel shape and subsequently with divergent section; e) angle rotation of the pipe by means of turning the rotating plate (6) to make the second sequence of slots, in the opposite direction of the first sequence and then successively on the whole perimeter of the pipe to meet the desired specification; f) removal of the sludge and impurities generated by the cut by the sleeves (7); g) internal cleaning of the slotted pipe with slag jetting; h) visual inspection of the slotted pipe to correct failures and possible imperfections with MIG soldering; and i) painting to provide a uniform visual aspect to the slotted pipe.

WO 2005/080020 A1